

antigenicity of intact papillomavirus virions, which comprises:

(a) transforming a host with an expression vector containing a DNA fragment encoding the L1 major capsid protein or an antigenic fragment thereof; and

(b) culturing said host under conditions suitable for expression of said L1 major capsid protein or antigenic fragment thereof.

42. The method of Claim 41, wherein the vector comprises a baculovirus vector.

43. The method of Claim 42, wherein the vector is a pSVL vector.

44. The method of Claim 41, wherein the host comprises mammalian cells.

45. The method of Claim 44, wherein the host comprises COS cells.--

REMARKS

By this Amendment, the specification has been amended to correct a minor typographical error at page 4 of the subject application.

In addition, Claims 41-45 have been added to recite methods for producing via recombinant methods an L1 major capsid protein or an antigenic fragment thereof, which upon expression is capable of reproducing the antigenicity of intact papillomavirus virions. Support for these claims may be found, at the very least, at page 9, line 7 to page 11, line 8.

Responsive to the Office Action dated November 18, 1992, Applicants elect with traverse Claims 1-3 and 10-18 of Group I, directed to a recombinantly expressed L1 major capsid protein or antigenic fragment thereof and vaccines containing such proteins or antigenic fragments.

The restriction requirement is respectfully traversed in its entirety, but most particularly with respect to the separation of Group I from Groups II and III (as well as newly submitted Claims 41-45).

It is respectfully noted that Claims 1-3 and 10-18 require that the protein be made by recombinant methods. Thus, these claims are not believed to be separate and distinct from the recombinant expression vectors and hosts of Group II. Moreover, with respect to Claims 10-18, it is respectfully argued that the vaccine composition is not separate and distinct from the method of administration thereof of Group III.

In addition, it is respectfully argued that a complete search of the recombinant proteins and vaccines of Group I will necessarily extend to the areas of search for the recombinant expression vectors and hosts of Group II in addition to the areas of search for the method of administration of Group III.

Furthermore, with respect to the remaining groups directed to anti-L1 capsid protein antibodies and the use thereof to immunize, it is further respectfully argued that these claims explicitly require that the antibodies be obtained using a recombinant L1 major capsid protein or an antigenic fragment thereof. Thus, these claims should also be examined together with the elected claims.

In conclusion, it is respectfully requested that the restriction requirement be withdrawn in its entirety or, at the very least, be modified to include Groups I, II and III and new Claims 41-45 as a single invention.

Favorable consideration on the merits is respectfully requested.

In the event that there are any questions relating to this application, it would be appreciated if the Examiner would telephone the undersigned attorney concerning such questions so that prosecution of this application may be expedited.

Respectfully submitted,

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